



Guiding Principles to Enable Food Systems to Support Sustainable Development Goal Attainment by 2030

- **Farmers must be at the center of all discussions and decision-making;** significant input will be needed from a wide range of farmer and other producer organizations outside of established policymaking structures.
- **There is no “silver bullet” solution for enhancing the resilience of agriculture and food systems;** policymakers must embrace a systems approach that recognizes the tremendous diversity of agricultural landscapes and ecosystems and enables producers to utilize the systems and practices that best support their farming operations.
- As affirmed in the communique from the 8th Meeting of G20 Agricultural Chief Scientists (MACS), **science-based decision making**, in conjunction with **farmer and indigenous innovation**, must be the foundation for the adoption of climate smart technologies and practices for sustainable agriculture and global food productionⁱ.
- Since crops, livestock and production forest dominate the world’s land area, agricultural systems must be advanced that **increase both production and production efficiency** per unit of land and water; that **meet the food and nutrition needs of the future**; and that also **greatly enhance ecosystem health** by regenerating soils, watershed and habitat for biodiversity at scale, while serving as a critical sink for greenhouse gasesⁱⁱ.
- As reflected in the Sustainable Development Goals (SDGs) of the United Nations, we should **mobilize innovation across all elements and participants in the food and agriculture system**, unlocking solutions that meet the whole set of production, environmental and social well-being outcomes, rather than relying on predetermined technologies, production types or design components.
- **Adaptation strategies will require system approaches**ⁱⁱⁱ that utilize a combination of improved efficiency, substitution (e.g. new crop varieties and breeds), and redesign/system transformation to reflexively respond to continuous short- and long-term changes in climate’s impacts on cultivated and natural ecosystem conditions.
- Climate smart agriculture knowledge and recommendations from farmers, businesses and peer- reviewed academic research **must be integrated into processes and investments**.
- **Context-specific priorities and solutions** must be aligned with national policies and priorities, be determined based on the social, economic, and environmental conditions at site (including the diversity in type and scale of agricultural activity), and be subject to evaluation of potential synergies, tradeoffs, and net benefits^{iv}.

ⁱ G20 Japan. *8th Meeting of Agricultural Chief Scientists (MACS) Communiqué* [Press Release]. (2019). Retrieved from <http://www.affrc.maff.go.jp/docs/press/attach/pdf/190427-3.pdf>

ⁱⁱ Campbell, B. M., Thornton, P., Zougmore, R., Van Asten, P., & Lipper, L. (2014). Sustainable intensification: What is its role in climate smart agriculture? *Current Opinion in Environmental Sustainability*, *8*, 39-43.

ⁱⁱⁱ Tittone, P. (2014). Ecological intensification of agriculture—sustainable by nature. *Current Opinion in Environmental Sustainability*, *8*, 53-61.

^{iv} North American Climate Smart Agriculture Alliance (2015). *A platform for knowledge sharing and application of climate science to agriculture* [Report]. Retrieved from: https://www.sfldialogue.net/files/sfl_formation_plan_2015.pdf